

FIG. 1a

Sequence #1: AGCGTA

Primer 3016 Da	Extension Products	Mass (Da)
—	agcgta	4878.2
—	agcgt	4565.0
—	agcg	4260.8**
—	agc	3931.6
—	ag	3642.4*
—	a	3313.2

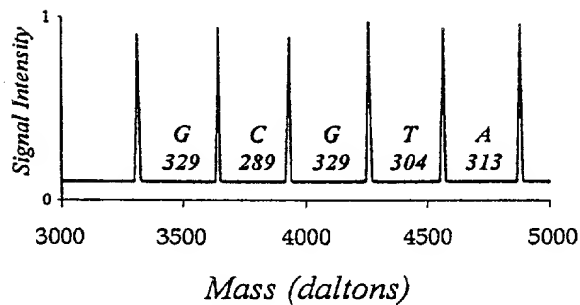


FIG. 1b

Sequence #2: GATCCT

Primer 3016 Da	Extension Products	Mass (Da)
—	gagcct	4854.2
—	gagcc	4550.0
—	gagc	4260.8**
—	gag	3971.6
—	ga	3642.4*
—	g	3329.2

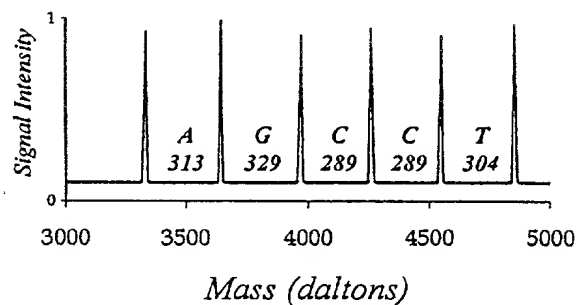


FIG. 1c

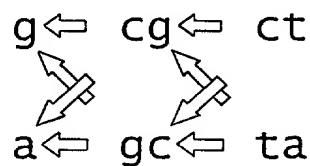
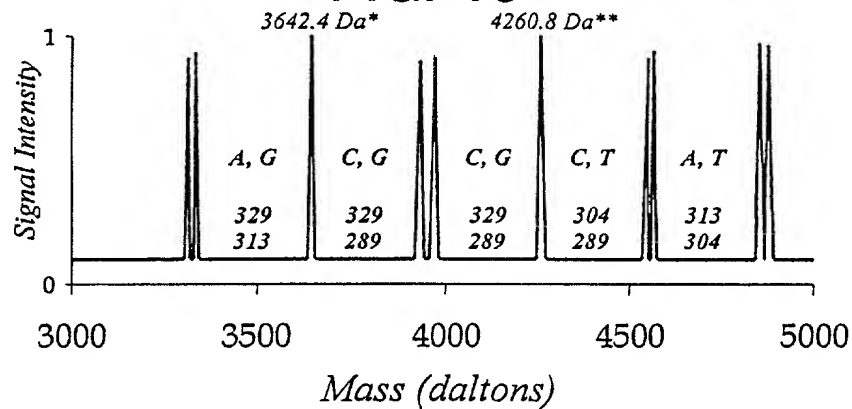


FIG. 1d

gcgct  
GCGTA  
ggcct  
ggcta  
acgct  
acgta  
AGCCT  
agcta

FIG. 1e

Nucleotide Mass (Da)

dN 310  
ddC 273  
ddT 288  
ddA 297  
ddG 313

Sequence #1: GCATG

<u>Primer #1</u>	<u>Extension</u>	<u>Mass (Da)</u>
3327 Da	Products	
————	nnnng	4880
————	nnnt	4545
————	nna	4244
————	nc	3910
————	g	3640

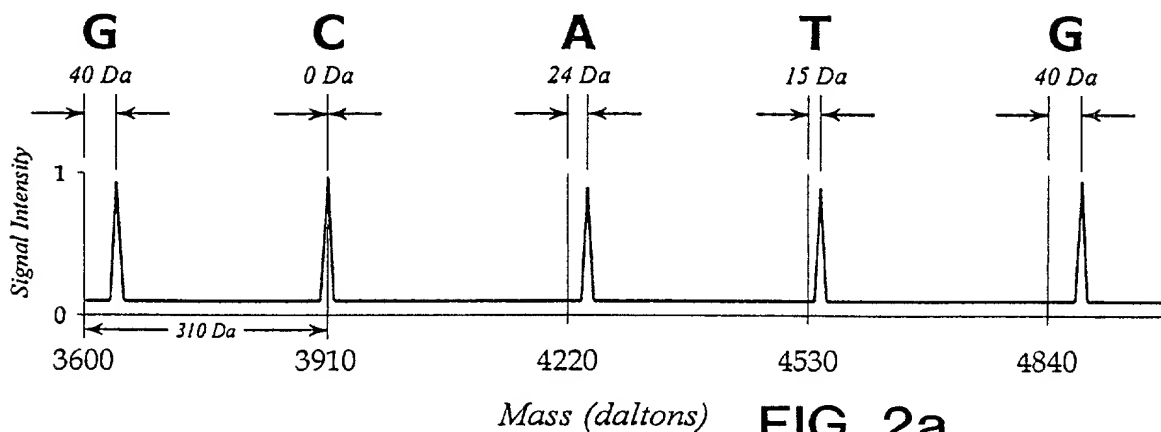


FIG. 2a

Sequence #2: CATGC

<u>Primer #2</u>	<u>Extension</u>	<u>Mass (Da)</u>
3404 Da	Products	
————	nnnnc	4917
————	nnng	4647
————	nnt	4312
————	na	4011
————	c	3677

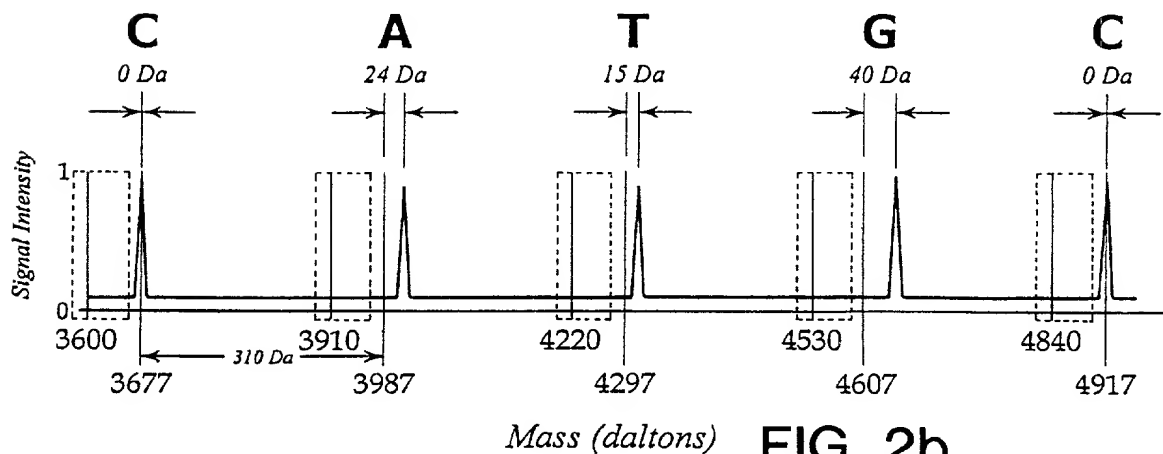


FIG. 2b

Sequence #1: GCATA

Primer #1 3327 Da	Extension Products	Mass (Da)
————	nnnna	4864
————	nnnt	4545
————	nna	4244
————	nc	3910
————	g	3640

Sequence #3: CATGC

Primer #3 3404 Da	Extension Products	Mass (Da)
————	nnnnc	4917
————	nnng	4647
————	nnt	4312
————	na	4011
————	c	3677

Sequence #2: TCAGG

Primer #2 3481 Da	Extension Products	Mass (Da)
————	nnnng	5034
————	nnng	4724
————	nna	4398
————	nc	4064
————	t	3769

Sequence #4: AACTC

Primer #4 3558 Da	Extension Products	Mass (Da)
————	nnnnc	5071
————	nnnt	4776
————	nnc	4451
————	na	4165
————	a	3855

Sequence

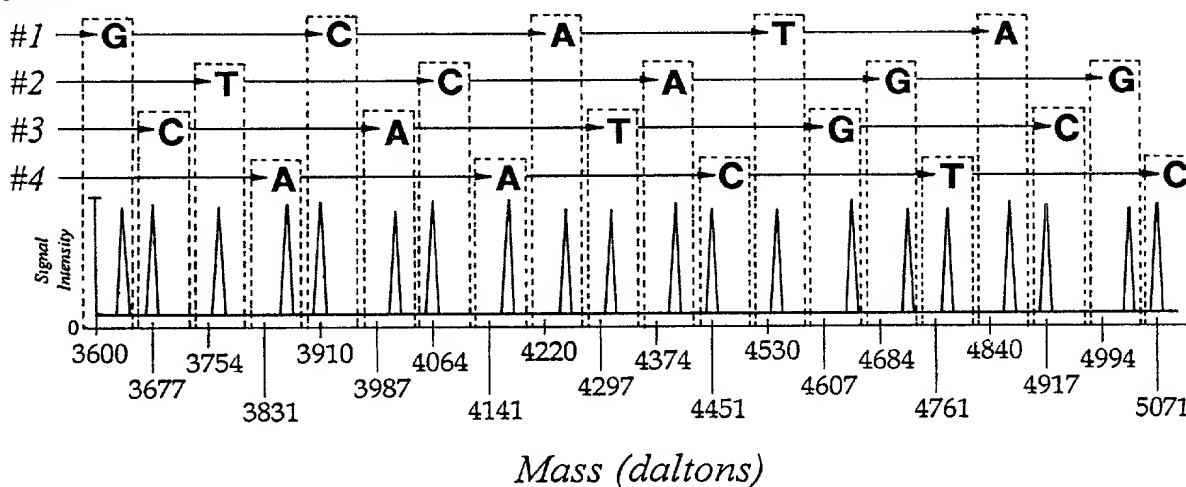
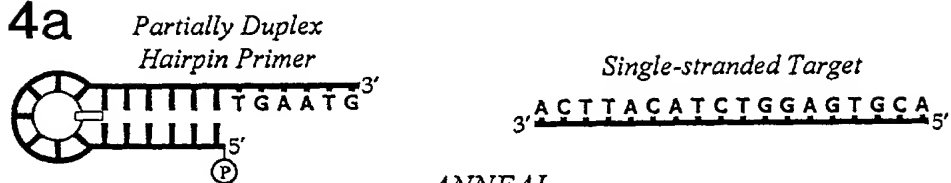


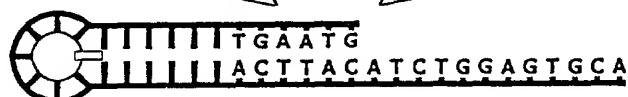
FIG. 3

FIG. 4a



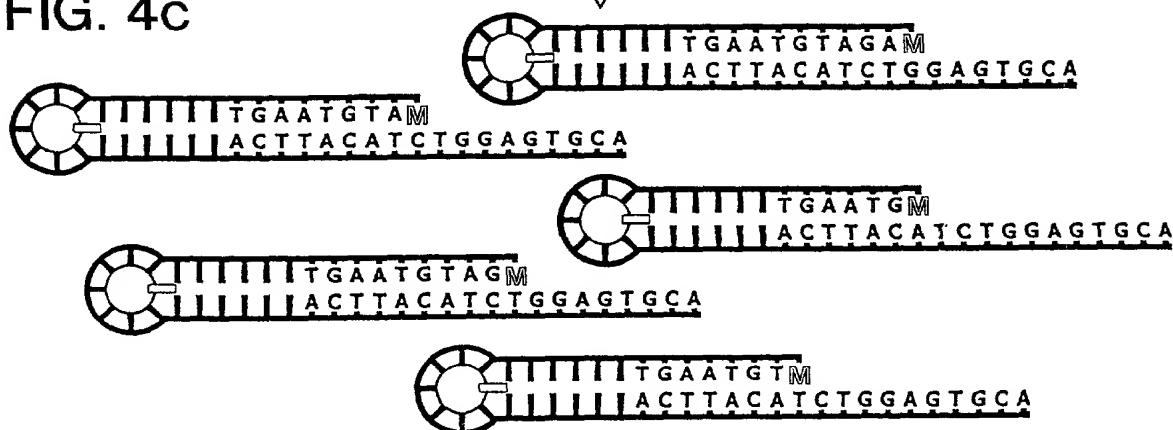
ANNEAL  
LIGATE

FIG. 4b



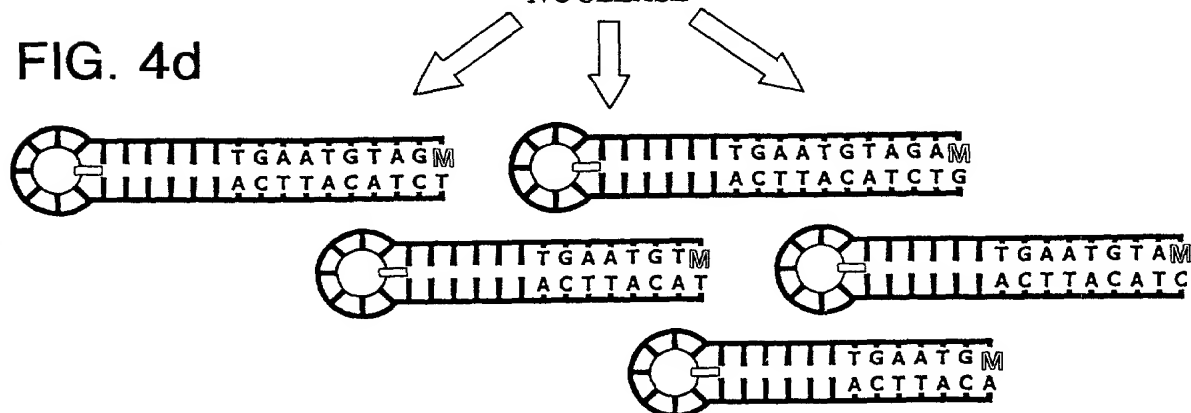
SEQUENCING REACTION  
with Mass-matched Terminators (M)

FIG. 4c



SINGLE STRAND-SPECIFIC  
NUCLEASE

FIG. 4d



Title: USE OF NUCLEOTIDE ANALOGS IN THE ANALYSIS  
OF OLIGONUCLEOTIDE MIXTURES AND IN HIGHLY  
MULTIPLEXED NUCLEIC ACID SEQUENCING.

Applicant: Cantor et al.

Serial No. 09/880,988 Filed: June 13, 2001

Our Docket No.: 25491-2408






<i>Reaction Products</i>	<i>Mass (Da)</i>
	12868.6
	12227.2
	11594.8
	10992.4
	10384.0

FIG. 5a

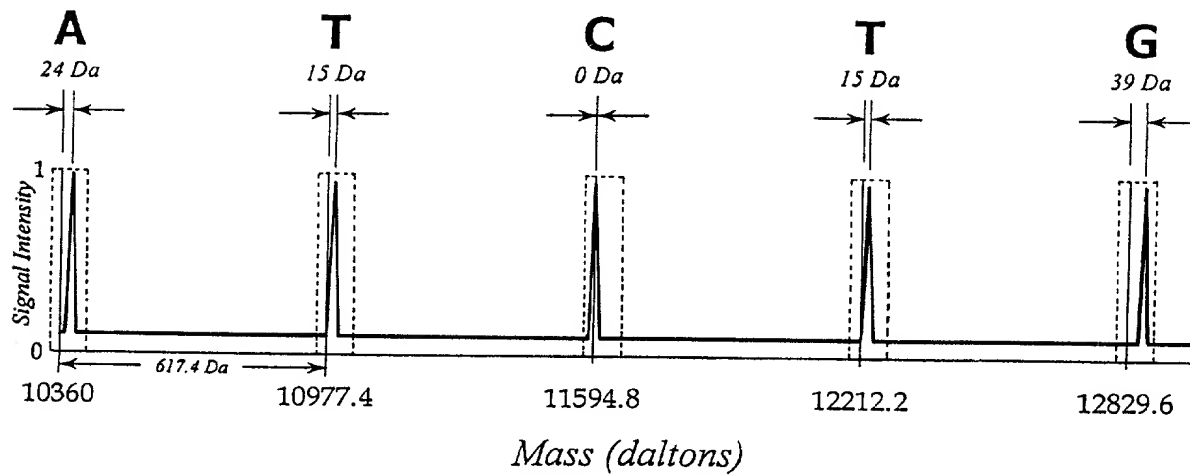


FIG. 5b

Variant #1: AACTGCAT			Variant #2: AACTTCAT			Variant #3: AAGTGCAT		
Primer	Extension	Mass (Da)	Primer	Extension	Mass (Da)	Primer	Extension	Mass (Da)
3616 Da	Products		3616 Da	Products		3616 Da	Products	
— aactgcat	6054		— aactccat	6029*		— aagtgcac	6094**	
— aactgca	5750		— aactcca	5725*		— aagtgcac	5790**	
— aactgc	5437		— aactcc	5412*		— aagtgc	5477**	
— aactg	5148		— aactc	5123*		— aagt	5188**	
— aact	4819		— aact	4819		— aagt	4859**	
— aac	4515		— aac	4515		— aag	4555**	
— aa	4226		— aa	4226		— aa	4226	
— a	3913		— a	3913		— a	3913	

FIG. 6a

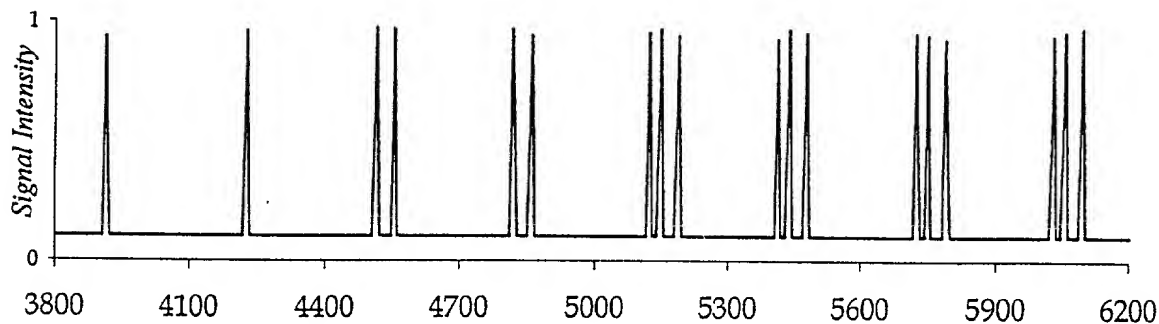


FIG. 6b Mass (daltons)

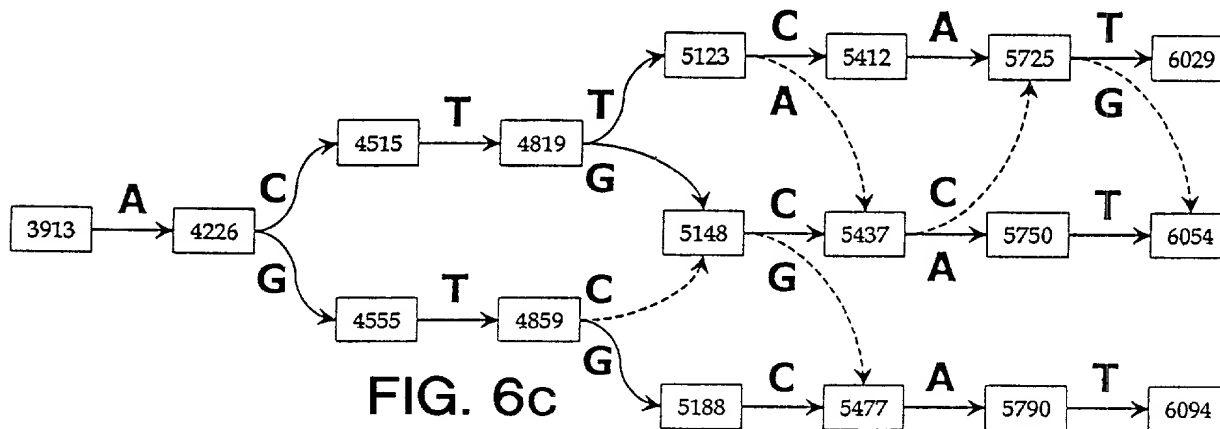


FIG. 6c

ACTGCAT actgccg actgcct actggat acttaat acttacg acttact  
 acttcag AACTTCAT agtccat agtcccg agtccct agtcgat AGTGCAT

FIG. 6d

Variant #1: AACTGCAT			Variant #2: AACTTCAT			Variant #3: AAGTGCAT		
Primer	Extension	Mass (Da)	Primer	Extension	Mass (Da)	Primer	Extension	Mass (Da)
3527 Da	Products		3527 Da	Products		3527 Da	Products	
nnnnnnnt	5985		nnnnnnnt	5985		nnnnnnnt	5985	
nnnnnna	5684		nnnnnna	5684		nnnnnna	5684	
nnnnnc	5350		nnnnnc	5350		nnnnnc	5350	
nnnng	5080		nnnnt	5055*		nnnng	5080	
nnnt	4745		nnnt	4745		nnnt	4745	
nnc	4420		nnc	4420		nng	4460**	
na	4134		na	4134		na	4134	
a	3824		a	3824		a	3824	

FIG. 7a

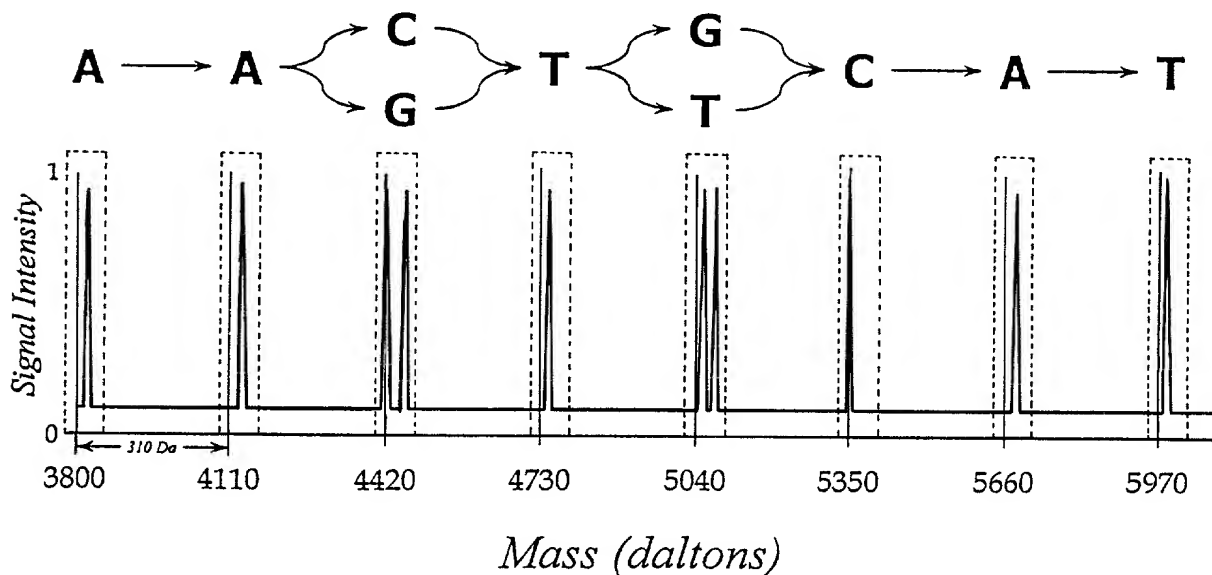


FIG. 7b

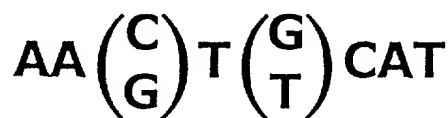


FIG. 7c

AACTGCAT  
AACTTCAT  
AAGTGCAT  
aagttcat

FIG. 7d

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Base composition density distributions for  
7-mers using different nucleotide sets.

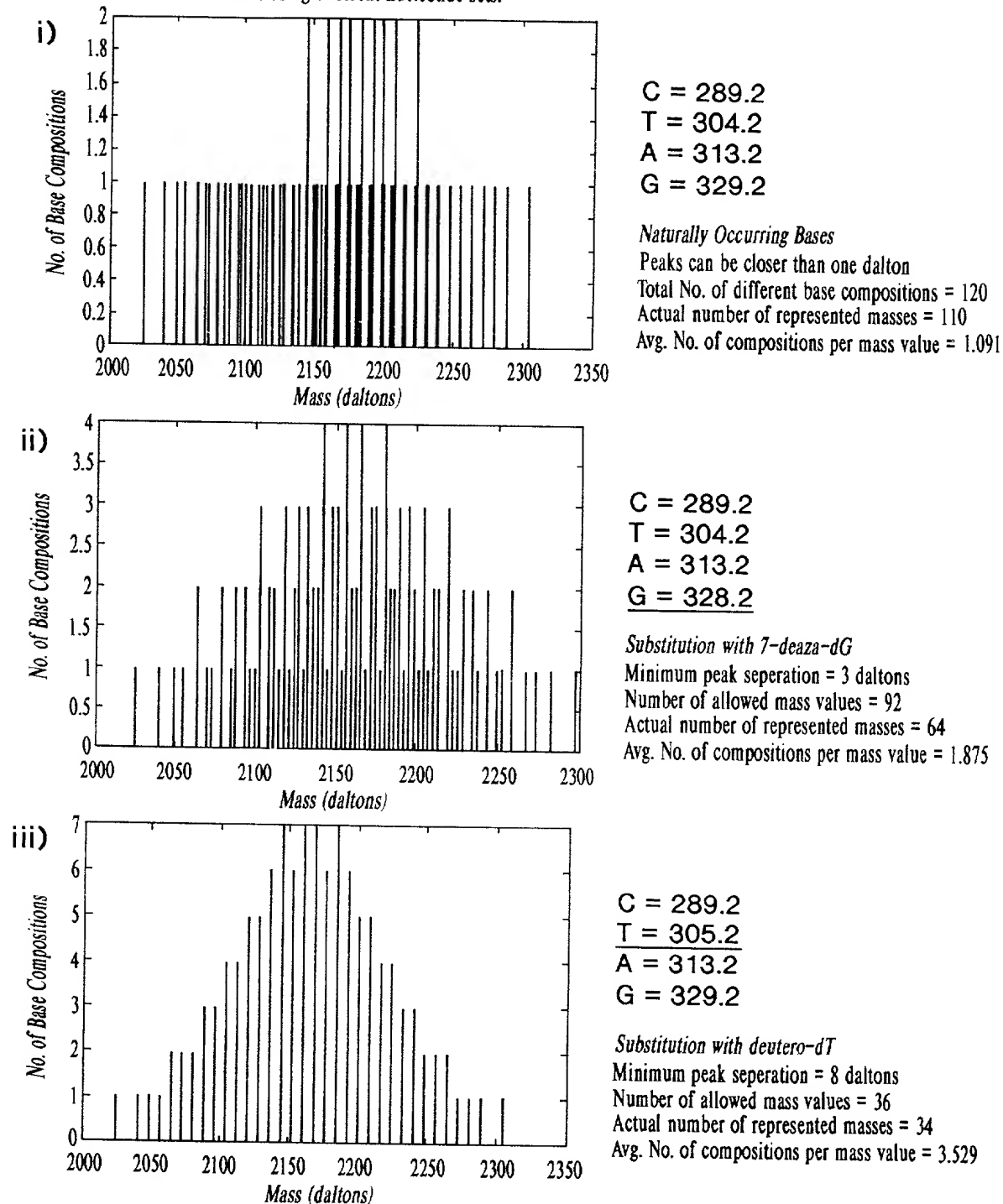


FIG. 8